Ropes & Gray

From the INTERNATIONAL BUREAU

JUL 28 2006 **PCT**

Intellectual Property Pention CONCERNING TRANSMITTAL OF COPY OF INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (CHAPTER I OF THE PATENT COOPERATION TREATY)

(PCT Rule 44bis.1(c))

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Date of mailing (day/month/year) 20 July 2006 (20.07.2006)

Applicant's or agent's file reference

YU-PWO-025

Y0087.70013W000

IMPORTANT NOTICE

International application No. PCT/US2005/000083 International filing date (day/month/year) 04 January 2005 (04.01.2005) Priority date (day/month/year) 06 January 2004 (06.01.2004)

Applicant

YALE UNIVERSITY et al

The International Bureau transmits herewith a copy of the international preliminary report on patentability (Chapter I of the Patent Cooperation

DOCKETED

SEP -1 2006

0087.700130000 Initials

Confirmation Docketing

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Form PCT/IB/326 (January 2004)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

| Applicant's or agent's file reference YU-PWO-025 | FOR FURTHER ACTION | See item 4 below | | |
|--|---|---|--|--|
| International application No. PCT/US2005/000083 | International filing date (day/month/year) 04 January 2005 (04.01.2005) | Priority date (day/month/year) 06 January 2004 (06.01.2004) | | |
| International Patent Classification (8th See relevant information in Form F | h edition unless older edition indicated) PCT/ISA/237 | | | |
| Applicant YALE UNIVERSITY | | | | |

| 1. | This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a). | | | | |
|----|---|---|--|--|--|
| 2. | This REPORT consists of a total of 9 sheets, including this cover sheet. | | | | |
| | In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead. | | | | |
| 3. | . This report contains indications relating to the following items: | | | | |
| | Box No. I | Basis of the report | | | |
| | Box No. II | Priority | | | |
| | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability | | | |
| | Box No. IV | Lack of unity of invention | | | |
| | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | | | |
| | Box No. VI | Certain documents cited | | | |
| | Box No. VII | Certain defects in the international application | | | |
| | Box No. VIII | Certain observations on the international application | | | |
| 4. | The International Bureau will not, except where the applican date (Rule 44bis .2). | communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but it makes an express request under Article 23(2), before the expiration of 30 months from the priority | | | |

| | Date of issuance of this report 10 July 2006 (10.07.2006) |
|---|--|
| The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland | Authorized officer Simin Baharlou |
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PATENT COOPERATION TREATY

| From | | ARCHING AUTH | ORITY . | | | REC'D 0 6 JUN 2005 |
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| | cant's or agent's fil | | | FOR FURTHER | | |
| see | form PCT/ISA/2 | 220 | | FOR FURTHER A | ACTION w | |
| PCT | ational application /US2005/00008 | 33 | International filing date (04.01.2005 | | Priority date (6 06.01.2004 | lay/month/year) |
| Applic | (31/13, A61K4) | 5/06, A61P25/18 | both national classification B, A61P25/22, A61P2 | and IPC 5/24 | | |
| | | | | | | |
| | Box No. I Box No. II Box No. III Box No. IV Box No. V Box No. VI Box No. VIII Box No. VIII FURTHER ACTION | Basis of the opin Priority Non-establishm Lack of unity of Reasoned state applicability; cital Certain docume Certain defects Certain observational prelimithe International pressure Authority | nent of opinion with rega invention ement under Rule 43 <i>bis</i> ations and explanations | ard to novelty, inventive 1(a)(i) with regard to not supporting such state lication all application and application will under this opinion will under the Authority ("IPEA"). Ho | ovelty, inventionent sually be cons wever, this do | ve step or industrial idered to be a |
| lf s m w | this opinion is, and the interest to the IPE on the conths from the conthichever expires | as provided abov A a written reply date of mailing of s later. | e, considered to be a w together, where approp Form PCT/ISA/220 or b | ritten opinion of the IPI riate, with amendment before the expiration of | EA, the applica s, before the e 22 months fro | ant is invited to Expiration of three In the priority date, |
| F | or further option | s, see Form PCT | /ISA/220. | | | |
| | | , see notes to Fo | | | | |
| Vame ar | nd mailing address | of the ISA: | | Authorized Officer | - | |
| | European Pa | atent Office | | Jillosi | | ordisches Petenten. |
| <u>_</u> | 🖊 D-80298 Mu | nich | 2 | Albrecht, S | | |
| Fer. 149 69 2399 - U Tx: 523656 epmu d | | | Telephone No. +49 89 23 | 399-7864 | | |

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Form (PCT/ISA/237) (Cover Sheet) (January 2004)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/US2005/000083

| _ | Box I | lo. I Basis of the opinion | | | |
|-------------------------------|--|---|--|--|--|
| 1. | With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item. | | | | |
| | la | his opinion has been established on the basis of a translation from the original language into the following inguage—, which is the language of a translation furnished for the purposes of international search under Rules 12.3 and 23.1(b)). | | | |
| 2. | . With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of: | | | | |
| | a. typ | e of material: | | | |
| | | a sequence listing | | | |
| | | table(s) related to the sequence listing | | | |
| | b. format of material: | | | | |
| | | in written format | | | |
| | | in computer readable form | | | |
| c. time of filing/furnishing: | | | | | |
| | | contained in the international application as filed. | | | |
| | | filed together with the international application in computer readable form. | | | |
| | | furnished subsequently to this Authority for the purposes of search. | | | |
| 3. | h | n addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto as been filed or furnished, the required statements that the information in the subsequent or additional opies is identical to that in the application as filed or does not go beyond the application as filed, as ppropriate, were furnished. | | | |
| 4. | Additi | onal comments: | | | |
| | | | | | |
| | Box I | lo. II Priority | | | |
| 1. | r r | The validity of the priority claim has not been considered because the International Searching Authority does not have in its possession a copy of the earlier application whose priority has been claimed or, where equired, a translation of that earlier application. This opinion has nevertheless been established on the ssumption that the relevant date (Rules 43 <i>bis</i> .1 and 64.1) is the claimed priority date. | | | |
| 2. | t | This opinion has been established as if no priority had been claimed due to the fact that the priority claim as been found invalid (Rules 43 <i>bis</i> .1 and 64.1). Thus for the purposes of this opinion, the international ling date indicated above is considered to be the relevant date. | | | |
| 3 | Δddit | onal observations if necessary | | | |

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/US2005/000083

| Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability | | | | | | |
|---|---|--|-----------------------------------|--|--|--|
| The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of: | | | | | | |
| | the entire international application, | | | | | |
| \boxtimes | 3 claims Nos. 1-8 | | | | | |
| bed | because: | | | | | |
| Ø | the said international application, or the said claims Nos. 1-8 (industrial applicability) relate to the following subject matter which does not require an international preliminary examination (specify): | | | | | |
| | see separate sheet | | | | | |
| | the description, claims or drawings (indicate particular elements below) or said claims Nos. are so unclear that no meaningful opinion could be formed (specify): | | | | | |
| | the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed. | | | | | |
| | no international search report has been established for the whole application or for said claims Nos. | | | | | |
| | the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that: | | | | | |
| | the written form | | has not been furnished | | | |
| | | | does not comply with the standard | | | |
| | the computer readable form | | has not been furnished | | | |
| | | | does not comply with the standard | | | |
| | the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-bis of the Administrative Instructions. | | | | | |
| | 3 See separate sheet for further details | | | | | |

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/US2005/000083

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Yes: Claims

8,13,16,22,23

No: Claims

1-7,9-12,14,15,17-21,24

Inventive step (IS)

Yes: Claims

No: Claims

1-24

Industrial applicability (IA)

Yes: Claims

9-24

No: Claims

2. Citations and explanations

see separate sheet

Re Item III

Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

Claims 1-8 relate to subject-matter considered by this Authority to be covered by the provisions of Rule 67.1(iv) PCT. Consequently, no opinion will be formulated with respect to the industrial applicability of the subject-matter of these claims (Article 34(4)(a)(I) PCT).

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

The following documents (D1-D4) are referred to in this written opinion; the numbering results from the order of citations found in the Search Report (SR) and will be adhered to in the rest of the procedure. The cited passage(s) for each citation will be considered unless otherwise specified.

V.1. Novelty

V.1.1. Claims 1-7, 9-12, 14, 15, 17-21, 24 do not appear to be novel in the sense of Article 33 (2) PCT, the reasons being as follows:

a) D2 discloses pharmaceutical formulations for treating tobacco, nicotine, cocaine and alcohol addiction, comprising a nicotinic acetylcholine receptor antagonist and an antidepressant such as tricyclic antidepressants, norepinephrine dopamine reuptake inhibitors, selective serotonin reuptake inhibitors, selective norepinephrine reuptake inhibitors and monoamine oxidase inhibitors. In particular, oral compositions comprising mecamylamine hydrochloride and bupropion or doxepin are mentioned, which may be formulated to release the active agents over an extended period of time.

Thus, D2 anticipates the subject-matter of claims 9-12, 14, 15, 17-21, 24.

In this context it is reminded that a new therapeutic indication (i.e. treatment of mood disorders) can only restore the novelty of a known product/composition, if this

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (SEPARATE SHEET)

International application No.

PCT/US2005/000083

product/composition has not yet been used for therapeutic purposes in the state of the art.

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (SEPARATE SHEET)

International application No.

PCT/US2005/000083

V.3. Industrial Applicability

For the assessment of the present claims 1-8 on the question whether they are industrially applicable, no unified criteria exist in the PCT Contracting States. The patentability can also be dependent upon the formulation of the claims. The EPO, for example, does not recognize as industrially applicable the subject-matter of claims to the use of a compound in medical treatment, but may allow, however, claims to a known compound for first use in medical treatment and the use of such a compound for the manufacture of a medicament for a new medical treatment.